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United States Patent [19]**Higley et al.**[11] **Patent Number:** **5,723,441**[45] **Date of Patent:** **Mar. 3, 1998****[54] METHOD OF TREATING RENAL DISEASE BY ADMINISTERING IGF-I AND IGFBP-3****[75] Inventors:** **Howard R. Higley**, Mountain View;
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both of Calif.**[73] Assignee:** **Celtrix Pharmaceuticals, Inc.**, Santa
Clara, Calif.**[21] Appl. No.:** **521,907****[22] Filed:** **Aug. 31, 1995****Related U.S. Application Data****[63]** Continuation of Ser. No. 353,141, Dec. 9, 1994, abandoned,
which is a continuation of Ser. No. 152,862, Nov. 15, 1993,
abandoned.**[51] Int. Cl.⁶** **A61K 38/00; A61K 38/28;**
..... **A61K 38/27****[52] U.S. Cl.** **514/12; 514/8; 514/21****[58] Field of Search** **514/12, 21, 8****[56] References Cited****U.S. PATENT DOCUMENTS**3,773,919 11/1973 Boswell et al. 424/486
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(List continued on next page.)

Primary Examiner—Cecilia J. Tsano*Assistant Examiner*—P. L. Touzeau*Attorney, Agent, or Firm*—Morrison & Foerster**[57]****ABSTRACT**Treatment with IGF/IGFBP-3 complex increases renal tubu-
lar mass and potentiates and/or stimulates kidney function in
subjects suffering from acute and chronic renal failure or
insufficiency resulting from such disorders as
glomerulonephritis, glomerulosclerosis, interstitial
nephritis, acute tubular necrosis due to ischemia and drug-
induced toxicity, diabetic and autoimmune nephropathies
and renal dysfunction due to acute and chronic rejection
episodes in post-transplantation patients.**18 Claims, 1 Drawing Sheet**